# Product data sheet Characteristics

# **ABL8MEM12020**

regulated SMPS, 1 or 2-phase, 100..240 V AC, 12 V, 2 A  $\,$ 





#### Main

Range of product	Modicon Power Supply
Product or component type	Power supply
Power supply type	Regulated switch mode
Nominal input voltage	100240 V AC phase to phase L1-L2 100240 V AC single phase N-L1 120250 V DC
Input voltage limits	85264 V AC
Kw Rating	25 W
Output voltage	1215 V DC
Power supply output current	2.1 A

#### Complementary

o in promortially			
Input protection type	Integrated fuse (not interchangeable)		
Inrush current	20 A		
[Ue] rated operational voltage	1215 V DC 0.5		
Efficiency	80 %		
Output voltage adjustment	11.415 V adjustable		
Power dissipation in W	6.2 W		
Current consumption	0.35 A 240 V 0.6 A 100 V		
Residual ripple	250 mV		
Output protection type	Against short-circuits		
Connections - terminals	Input connection screw type terminals 2 x 0.142 x 2.5 mm² AWG 26AWG 14 Output connection screw type terminals 4 x 0.144 x 2.5 mm² AWG 26AWG 14		
Status LED	Output voltage 1 LED Green)		
Maximum Depth	2.32 in (59 mm)		
Maximum Height	3.94 in (100 mm)		
Maximum Width	2.13 in (54 mm)		
Net Weight	0.43 lb(US) (0.195 kg)		
Output coupling	Parallel Series		
Marking	CE		
Mounting support	35 x 7.5 mm symmetrical DIN rail 35 x 15 mm symmetrical DIN rail Panel 2 screws, diameter : 4 mm		
Operating position	Vertical		

#### Environment

Standards	UL 508 CSA C22.2 No 60950-1	
Product certifications	EAC RCM KC TUV 60950-1 CCSAus CSA 22-2 No 950 CULus 508	
Environmental characteristic	EMC EN 55022 Class B EMC EN 61000-6-3 EMC EN/IEC 61000-6-2 EMC EN/IEC 61204-3 Safety EN/IEC 60950-1 Safety SELV	
Operating altitude	6561.68 ft (2000 m)	
IP degree of protection	IP20 EN/IEC 60529	
Ambient air temperature for operation	-13131 °F (-2555 °C) without) 131158 °F (5570 °C) with derating factor)	
Ambient air temperature for storage	-40158 °F (-4070 °C)	
Relative humidity	090 % during operation 095 % in storage	
Dielectric strength	3000 V between input and output	

# Ordering and shipping details

Category	22525 - ABL8 AND ABL7 POWER SUPPLIE	
Discount Schedule	CP12	
GTIN	00785901608264	
Nbr. of units in pkg.	1	
Package weight(Lbs)	0.51 lb(US) (0.23 kg)	
Returnability	Yes	
Country of origin	CN	

## Packing Units

Package 1 Height	0.750 dm	
Package 1 width	1.000 dm	
Package 1 Length	0.700 dm	

## Offer Sustainability

Sustainable offer status	Green Premium product		
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS  Declaration		
Mercury free	Yes		
RoHS exemption information	₫Yes		
China RoHS Regulation	☑ China RoHS Declaration		
Circularity Profile	☑ End Of Life Information		
PVC free	Yes		

#### Contractual warranty

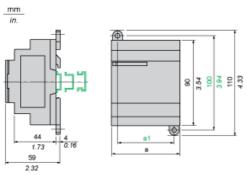
Warranty	18 months

# Product data sheet Dimensions Drawings

# **ABL8MEM12020**

#### Regulated Switch Mode Power Supplies

#### Dimensions

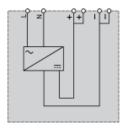


	a in mm	a in in.	a1 in mm	a1 in in.
ABL8MEM05040	54	2.12	42	1.65
ABL8MEM12020	54	2.12	42	1.65
ABL8MEM24003	36	1.41	24	0.94
ABL8MEM24006	36	1.41	24	0.94
ABL8MEM24012	54	2.12	42	1.65
ABL7RM24025	74	2.91	60	2.36

## **ABL8MEM12020**

#### Regulated Switch Mode Power Supply

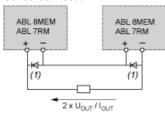
#### Internal Wiring Diagram



#### Regulated Switch Mode Power Supplies

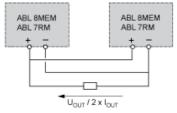
#### Series or Parallel Connection

#### Series Connection



(1) Two Shottky diodes Imin = power supply In and Vmin = 50 V

#### Parallel Connection



Family	Series	Parallel
ABL 7RM/8MEM	2 products max.	2 products max.

NOTE: Series or parallel connection is only recommended for products with identical references.

## **ABL8MEM12020**

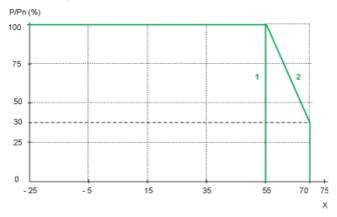
#### Regulated Switch Mode Power Supplies

#### Derating

The ambient temperature is a determining factor that limits the power an electronic power supply can deliver continuously. If the temperature around the electronic components is too high, their life will be significantly reduced.

The nominal ambient temperature for the Modular range of Phaseo power supplies is 55°C. Above this temperature, derating is necessary up to a maximum temperature of 70°C (except for the ABL7RM24025 model).

The graph below shows the power as a percentage of the nominal power that the power supply can deliver continuously, depending on the ambient temperature.



- X Maximum operating temperature (°C)
- (1) With an ABL7RM24025
- (2) With an ABL8MEM•••••